Contents of Volume 158

Research Articles

J.S. Gunn, I.R. Harrowfield, C.H. Proctor and R.E. Thresher (Australia)
Electron probe microanalysis of fish otoliths – evaluation of techniques for studying age and stock discrimination 1

J.L.M. Montgomery and T.E. Targett (USA)
The nutritional role of seagrass in the diet of the omnivorous pinfish *Lagodon rhomboides* (L.) 37

M. Olaizola, P.K. Bienfang and D.A. Zieman (USA)
Pigment analysis of phytoplankton during a Subarctic spring bloom: xanthophyll cycling 59

R.W. Lee, E.V. Thuesen and J.J. Childress (USA)
Ammonium and free amino acids as nitrogen sources for the chemoautotrophic symbiosis *Solemya reidi* Bernard (Bivalvia : Protobranchia) 75

D.M. Monteleone and E.D. Houde (USA)
Vulnerability of striped bass *Morone saxatilis* Waldbaum eggs and larvae to predation by juvenile white perch *Morone americana* Gmelin 93

G.R. Carvalho, A. Thompson and A.L. Stoner (UK)
Genetic diversity and population differentiation of the shortfin squid *Illex argentinus* in the south-west Atlantic 105

H.M. Verheye and J.G. Field (South Africa)
Vertical distribution and diel vertical migration of *Calanoides carinatus* (Kroyer, 1849) developmental stages in the southern Benguela upwelling region 123

Book Reviews

Heavy metals in the marine environment, edited by R.W. Furness and P.S. Rainbow, reviewed by G.W. Bryan 141

Marine biology: its accomplishment and future prospect, edited by J. Mauchline and T. Nemoto, reviewed by J.S. Ryland 143

Protozoan plankton ecology, by J. Laybourn-Parry, reviewed by T. Fenchel 145

The marine fauna of the British Isles and north-west Europe. Volume 1: Introduction and protozoans to arthropods. Volume 2: Molluscs to chordates, edited by P.J. Hayward and J.S. Ryland, reviewed by M.B. Jones 146

Research Articles

I. de Madariaga and I. Joint (UK)
A comparative study of phytoplankton physiological indicators 149

L.E. Deaton (USA)
Osmoregulation and epithelial permeability in two euryhaline bivalve molluscs: *Mya arenaria* and *Geukensia demissa* 167

Suharsono and B.E. Brown (UK)
Comparative measurements of mitotic index in zooxanthellae from a symbiotic cnidarian subject to temperature increase 179

B.F.J. Manly (New Zealand)
Bootstrapping for determining sample sizes in biological studies 189

M.D. Guiry and C.J. Dawes (Ireland, USA)
Daylength, temperature and nutrient control of tetrasporogenesis in *Asparagopsis armata* (Rhodophyta) 197

T. Han and J.M. Kain (Jones) (UK)
Blue light sensitivity of UV-irradiated young sporophytes of *Laminaria hyperborea* 219

M. Lindström and W. Fortelius (Finland)
Factors affecting the horizontal migration of the amphipod *Pontoporeia affinis* Lindström. II. Effects of temperature, salinity and substratum 231

P. Olsson, E. Granéli, P. Carlson and P. Abreu (Brazil, Sweden)
Structuring of a postspring phytoplankton community by manipulation of trophic interactions 249

Book Reviews

Aquatic microbiology, by G. Rheinheimer, reviewed by M.F. Turner 267

Atlas of invertebrate reproduction and development, by D.B. Conn, reviewed by C.D. Todd 268

Ecology by teleost fishes, by R.J. Wootton, reviewed by R.N. Gilson 270

The visual system of fish, edited by R.H. Douglas and M.B.A. Djamgoz, reviewed by J.H.S. Blaxter 271

Author Index of Volume 158 273

Contents of Volume 158 275